

## WHAT IS CLAIMED IS:

## 1. A apparatus comprising:

a start processing unit which conduct a start processing, and then start an application when power of

5 a apparatus system is turned on;

a trouble monitoring unit which control the power of the apparatus system, and integrally monitor a trouble of said start processing unit and a trouble during system operation; and

10 a trouble notification unit which acquire log information stored in said start processing unit, and notify an external remote maintenance system of the log information through a network interface if said trouble monitoring unit detects the trouble of said start processing unit.

## 2. A apparatus according to claim 1, wherein

said start processing unit is provided on a baseboard, said trouble monitoring unit is provided on an integrated management panel board, and said trouble  
20 notification unit is provided on a system management support board, the system management support board comprising a dedicated power unit constantly supplied with power, a board interface connected to said integrated management panel board, and the network  
25 interface connecting said remote maintenance system.

## 3. A apparatus according to claim 2, wherein

said system management support board is an

interface board connected to an interface provided on the baseboard of the apparatus system.

4. A apparatus according to claim 3, wherein  
said system management support board is a PCI board  
5 connected to a PCI bus provided on the baseboard of the apparatus system.

5. A apparatus according to claim 1, wherein  
a monitoring agent which monitor the trouble of  
the trouble notification unit provided on said system  
10 management support board is provided on the apparatus system side as an application, and an interface coupled to said monitoring agent is provided on said system management support board.

6. A apparatus according to claim 5, wherein  
15 the interface coupled to said monitoring agent is a PCI bus.

7. A apparatus according to claim 5, wherein  
said trouble notification unit on the system  
management support board stores a communication failure  
20 flag in a memory when notification of an alarm message and the log information to the remote maintenance system fails; and

if the apparatus system is restarted, said  
monitoring agent on the apparatus system side notifies  
25 said remote maintenance system of the alarm message indicating that a communication trouble occurred to said trouble notification unit through the network interface

on the baseboard based on said communication failure flag.

8. A apparatus according to claim 5, wherein  
said trouble notification unit on the system  
5 management support board regularly communicates with  
said remote maintenance system using a network interface  
of the trouble notification unit, and stores a  
communication failure flag in a memory when detecting  
abnormality of communication; and  
10 said monitoring agent on the server system side  
notifies said remote maintenance system of an alarm  
message indicating a communication trouble on said  
trouble notification unit side through the network  
interface on the baseboard based on said communication  
15 failure flag.

9. A apparatus according to claim 5, wherein  
said monitoring agent on the communication system  
side regularly issues a regular notification command  
indicating that the apparatus system side normally  
20 operates; and

said trouble notification unit on the system  
management support board detects that the apparatus  
system is abnormal if said regular notification command  
is stopped, and notifies the remote maintenance system  
25 of an alarm message.

10. A system management support apparatus,  
comprising:

a power supply unit which constantly supply power;  
a board interface which control power of a  
apparatus system, and connect to an integrated  
management panel board for monitoring a trouble of the  
5 apparatus system;

a network interface connecting an external remote  
maintenance system; and

a trouble notification unit which acquire log  
information when receiving trouble information  
10 generated since the power of the system is turned on until  
a start processing is conducted and an application is  
started, from said integrated management panel board,  
and notify the external remote maintenance system of the  
log information, wherein

15 said power supply unit, said board interface, said  
network interface and said trouble notification unit are  
provided on a board connectable to an interface of the  
apparatus system.

11. An apparatus according to claim 10, wherein  
20 said power supply unit, said board interface, said  
network interface and said trouble notification unit are  
provided on an interface board connected to an interface  
provided on a baseboard of the apparatus system.

12. An apparatus according to claim 10, wherein  
25 said power supply unit, said board interface, said  
network interface and said trouble notification unit are  
provided on a PCI board connected to a PCI bus provided

on a baseboard of the apparatus system.

13. An apparatus according to claim 10, wherein  
an interface coupled to a monitoring agent  
provided on the apparatus system side as an application  
5 is provided.

14. An apparatus according to claim 13, wherein  
the interface coupled to said monitoring agent is  
a PCI bus.

15. An apparatus according to claim 14, wherein  
10 said trouble notification unit stores a  
communication failure flag in a memory when notification  
of an alarm message and the log information to the remote  
maintenance system fails; and

if the apparatus system is restarted, said  
15 monitoring agent on the apparatus system side notifies  
said remote maintenance system of the alarm message  
indicating that a communication trouble occurred to said  
trouble notification unit through the network interface  
on the baseboard based on the communication failure  
20 flag.

16. An apparatus according to claim 14, wherein  
said trouble notification unit regularly  
communicates with said remote maintenance system using  
a network interface of the trouble notification unit,  
25 and stores a communication failure flag in a memory when  
detecting abnormality of communication; and

said monitoring agent on the apparatus side

notifies said remote maintenance system of an alarm message indicating abnormality of communication on said trouble notification unit side through the network interface on the baseboard based on said communication failure flag.

17. An apparatus according to claim 14, wherein said trouble notification unit detects that the apparatus system is abnormal if a regular notification command regularly issued from the monitoring agent on the apparatus system side is stopped, and notifies the remote maintenance system of an alarm message.

18. A apparatus system management method comprising:  
a start processing operation of conducting a start processing, and then starting an application when power of a computer system is turned on;

a trouble monitoring operation of controlling the power of the computer system, and integrally monitoring a trouble of said start processing unit; and

a trouble notification operation of acquiring log information, and notifying an external remote maintenance system of the log information through a network interface if the trouble of said start processing unit is detected in said trouble monitoring operation.

19. A method according to claim 18, wherein a monitoring agent provided on the apparatus

system side as an application monitors the trouble in said trouble notification operation.

20. A method according to claim 19, wherein  
in said trouble notification operation, a  
5 communication failure flag is stored in a memory when notification of an alarm message and the log information to the remote maintenance system fails; and

if the apparatus system is restarted, said monitoring agent notifies said remote maintenance  
10 system of the alarm message indicating that a trouble occurred to said trouble notification operation through the network interface on the computer system side based on said communication failure flag.

21. A method according to claim 19, wherein  
15 in said trouble notification operation, communication with said remote maintenance system is regularly established using a network interface, and a communication failure flag is stored in a memory when abnormality of the communication is detected; and

20 said monitoring agent notifies said remote maintenance system of an alarm message indicating abnormality of the communication in said trouble notification operation through the network interface on the apparatus system side based on said communication  
25 failure flag.

22. A method according to claim 19, wherein  
said monitoring agent regularly issues a regular

notification command indicating that the apparatus  
system normally operates; and

in said trouble notification operation, abnormality of the apparatus system is detected if said  
5 regular notification command is stopped, and an alarm message is notified to the remote maintenance system.